

QUARRIES—DETAILS.



1/2 IN. TO THE FT.

same moulded parapet which the centre gable has.

The whole character of the building, the details of the window frames, and other appearances, would denote the period of its erection to be in the reign of Henry VIII. There is no shield of arms or initials of any kind upon it, neither is there any reference or allusion to it in any published history of the county. Whether it is, or is not, the erection of the Lord Cromwell must remain uncertain. After the degradation and death of that nobleman the property was devised by the crown to other parties.

C. J. R.

. As part of our series illustration of the progress of domestic architecture, to which general reference will be made hereafter, this and preceding engravings will be seen to have a purpose beyond that of recording the structures themselves.

CONSTRUCTION OF PAVEMENTS.

SIR,—One of the recent numbers of your highly esteemed journal, contains some very reflective comments upon the architects of the present day, in reference to the construction of pavements; and in such direct accordance with my own opinion upon the subject, that I venture to submit, for the perusal of your readers, a few remarks claiming its importance, and to address you in behalf of an almost hidden discovery, that may tend to remedy the errors to which you refer. It must be obvious to all, that the first and most essential element of a good pavement is its facility to preserve the uniform surface in which it is laid, whether inclined or horizontal, to secure which no artificer up to the present day has succeeded, in connection with public advantage.

Even the Romans, who constructed pavements many centuries ago, of all the diversity

of form and assemblage of colour that human art could devise, either representing their trigonometric prowess, or illustrating the poetic fancies of their renowned writers, and although these same pavements lie hidden in numbers beneath the cultivated surface of many parts of our island (but little injured by the lapse of time and its attendant effects), yet none were constructed upon a principle from which it would be consistent either with our means or advancement in mechanical science, to derive a precedent. To what, then, can we attribute the perfect state of preservation in which these pavements are found? Not from a knowledge of the superior means known now (though not generally); but doubtless it was the result of great labour, which would at the present day incur an expense at once dissipating the means of ever equalling an age that we ought to surpass. It will generally be found, that these pavements were laid on a surface of well-composed concrete, having for its bed layers of well rammed clay, in such a high state of compression, that it is evident very much labour and attention must have been bestowed upon this their most important foundation. In some cases it resembles the shale found immediately under and above the beds of blue lias limestone; and when we reflect upon the enormous expense that such labour would involve at the rate of our workmen's wages, we should be clearly convinced of the futility of an attempt to follow the system of the Romans in constructing tessellated pavements.

Many of these highly interesting specimens have occasionally been discovered in England, of which those at Woodchester and Cirencester (named in the paragraph), are well worthy of attention, but that from which I derived much knowledge of their construction was found at Newton St. Loe, in the neighbourhood of Bath, in the course of excavation for the formation of the Great Western Railway; and as the circumstances of its discovery proved also the necessity of its removal, a better opportunity of examining the sub-surfaces could not be wished for. Being then engaged in that district of the line, I had frequent opportunities of witnessing the disclosure; and was, subsequent to the entire opening, employed in making full-size drawings of each pavement, and in superintending their removal to the company's offices. Hence I derived an intimate knowledge of the substructure; and my impressions were confirmed by the fact, that where the pavement (evidently of inferior apartments) was not in the highest state of preservation, its construction differed only from the others in the absence of the first layers of clay, avoided no doubt from (even then) the attendant expense.

It is evident from the frequent attempts that have lately been made to introduce tessellated pavements, that a consciousness exists of the claims that one of the most important surfaces in a building holds on the decorative artist.

We all agree that it is not sufficient to build plain walls, and construct flat ceilings, without breaking the monotony of their surface with

the well-known parts that make up an architectural composition; why then should we forget that the floor offers a wide field for the display of genius or taste, producing those highly pleasing and moral effects upon the mind, that necessarily attend the judicious co-operation of the fine arts with utilities.

We have numbered instances of the importance attached to this subject by people who must have devoted much time, and the great study in designing and arranging the various devices, forms and illustrations, that are found in the specimens before alluded to, when the decorative arts were deemed as essential as the mechanical ones, to respond to the wants of mankind, at once illustrative of the genius and artistic feeling co-existent with that great age, that we, in our darkness, but imaginative greatness, vainly endeavour to imitate. It was with the most praiseworthy feeling that the most important public building of our metropolis was deemed worthy of all the architectural aid which our advancement in the science could afford, and, consequently, the floors of the Royal Exchange were doomed to be carpeted with an Anglo-Roman tessellated pavement. Much praise did this excite from the worthy inhabitants and visitors of this our renowned city; but, alas! that praise was transient as the smiles of an April sun, and the shower of ridicule burst on the failure that ensued; and as your paragraph states (which, in its import, was quoted in the following day's *Times*, and many other papers), the asphalt which succeeded the tessellated pavement "was cleared away to let in the old sinne again."

Yet the reintroduction of a pavement formed of tesserae, subservient to the will of the artist, is highly praiseworthy, and it only remains for others to supply the means of a cheap and substantial construction.

About three years ago a patent was granted for the discovery of a form of block suitable to the formation of pavements, roadways, &c., of which I herewith send explanatory diagrams. It will be seen that the form exhibited (fig. 1) is of a peculiar though extremely simple character, and consists of an amalgam of two three-sided wedges, one acting upwards, and the other downwards, so that a combination of these, as shown in fig. 2, resting with a nine-inch bed on walls at each extremity, would form a solid floor equal to the effect of all proportionate weight or pressure whatever. It will be perceived, that in a floor so constructed, if a weight be imposed upon any one of the blocks, it would be distributed or communicated by the three sides acting as the downward wedge, to the sides of three of the surrounding blocks (one to each), and so communicated to the abutment or extreme bearing points; thus a mutual support being established, for three sides of the hexagonal block give, whilst the other three receive, support. In such case it would differ from a solid mass in one particular only, which proves one of its great advantages. In all large slabs of stone or other material, where there is a bad vein or other defect in any part, there is always either a continuation of that defect, or a tendency, in

BLOCKS FOR PAVING.

